IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Goodman et al.

Group Art Unit: 1644

Serial No. 08/971,172

Examiner: S. Turner

Filed: November 14, 1997

Attorney Docket No. B98-006-2

For: Robo: A Novel Family of Polypeptides

and Nucleic Acids

DECLARATION UNDER RULE 132

I, Tito Serafini, declare and state as follows:

- 1. I am an Associate Professor in the Department of Molecular and Cell Biology at the University of California, Berkeley. The Regents of the University of California is the assignee of the subject patent application. I am knowledgeable and experienced in the field of molecular biology. I have read and am familiar with the contents of the above application.
- 2. In my opinion, the phrase "flanked by fewer than 500 bp of native flanking sequence" is clear and definite to those of ordinary skill in the art in view of the specification. For example, on p.19, lines 27-33 the specification explains: "The subject recombinant nucleic acids comprising the nucleotide sequence of SEQ ID NO:1, 3, 5, 7, 9 or 11, or fragments thereof, contain such sequence or fragment at a terminus, immediately flanked by (i.e. contiguous with) a sequence other than that which it is joined to on a natural chromosome, or flanked by a native flanking region fewer than ... 500 bp, which is at a terminus or is immediately flanked by a sequence other than that which it is joined to on a natural chromosome."

This usage clearly conveys to those skilled in the art that (a) a strand "flanked by fewer than 500 bp of native flanking sequence" is contiguous with, on at least one end, fewer than 500 bp of native flanking sequence; (b) fewer than 500 bp includes zero bp and (c) native flanking sequence is sequence to which the strand is joined on a natural chromosome. Furthermore, native flanking sequences are readily determined from corresponding natural chromosome sources, which are identified in the specification (e.g. p.4, lines 1-3).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application and any patent issuing therefrom.

Date: February 3, 2000

Prof. Tito Serafini

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SECOND DECLARATION UNDER 37 CFR 1.131

Assistant Commissioner for Patents Washington D.C. 20231

Dear Commissioner:

- 1. We are coinventors of the subject patent application.
- 2. Attached is a printout of a Word file dated April 24, 1997 which contains the Human Robo I cDNA sequence we isolated in 1996. The sequence includes the 5' UTR of Human Robo I (bases 1-509) and Human Robo I coding sequence (bases 510-5366) encoding amino acids 1-1619 of Human Robo 1. The file is archived on Compact Disc and is supported by raw sequence files. This work was performed in the United States.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Aug 30, 2000

Aug 30

Thomas Kidd

Your Michael 1 Au

Aug 30, 2000

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Human Robo-I Sequence 4.24.97

TTGACGGAATTCCTTAAACATCGCAGCAGGCATTACAATACCAGAGGTAACGAATCAATT AAATCCAWTTTCCCCTCGGCGTCTCMAAAGCTGCGKGCCTAGTGTTGCTGTGTAGTTTAG ACCGGRGCAGTAGGACCMCAGGGGCCTCCGCAGCCMCCAATAGAAGCGCACACTTGGVCC TATTTGTATGCAATGCCTTTCTGCTCTGCGCATTAWATAGTDAATACAGATAACGGGTTT GAAAGAAWTTCTCTACTGAAGARGGATTGAATTTTTCCAGGGTGCTGATACAGAGAAGAA ACCCGACTTCACTCTCTCCCTATTTCCCCACTCTTAGGTTTAAAAGTCTGTCACCTTTCG CTTGGTTTAAACTCGGAAAGGTCTCAGTGCACAGCAAAGTTGCAGGGCTGCGTCTGCACT ${\tt GCTGGTTGTAATGCAAGGAAGGGACAAAG{\tt ATG}AAATGGAAACATGTTCCTTTTTTGGTCA}$ $TGATATCACTCCTCAGCTTATCCCCCAAAT\overline{CAC}CTGTTTCTGGCCCAGCTTATTCCAGACC$ CTGAAGATGTAGAGAGGGGGAACGACCACGGGACGCCAATCCCCACCTCTGATAACGATG ACAATTCGCTGGGCTATACAGGCTCCCGTCTTCGTCAGGAAGATTTTCCACCTCGCATTG TTGAACACCCTTCAGACCTGATTGTCTCAAAAGGAGAACCTGCAACTTTGAACTGCAAAG GTATAGTACATGGACGGAAAAGTAGACCTGATGAAGGAGTCTATGTCTGTGTAGCAAGGA ATTACCTTGGAGAGGCTGTGAGCCACAATGCATCGCTGGAAGTAGCCATACTTCGGGATG ACTTCAGACAAAACCCTTCGGATGTCATGGTTGCAGTAGGAGGCCTGCAGTAATGGAAT GCCAACCTCCACGAGGCCATCCTGAGCCCACCATTTCATGGAAGAAGATGGCTCTCCAC TGGATGATAAAGATGAAAGAATAACTATACGAGGAGGAAAGCTCATGATCACTTACACCC GTAAAAGTGACGCTGGCAAATATGTTTGTGTTGGTACCAATATGGTTGGGGAACGTGAGA GTGAAGTAGCCGAGCTGACTGTCTTAGAGAGACCCATCATTTGTGAAGAGACCCAGTAACT TGGCAGTAACTGTGGATGACAGTGCAGAATTTAAATGTGAGGCCCGAGGTGACCCTGTAC CTACAGTACGATGGAGGAAAGATGATGGAGAGCTGCCCAAATCCAGATATGAAATCCGAG ATGATCATACCTTGAAAATTAGGAAGGTGACAGCTGGTGACATGGGTTCATACACTTGTG TTGCAGAAAATATGGTGGGCAAAGCTGAAGCATCTGCTACTCTGACTGTTCAAGAACCTC AGTGTGAAGCAACCGGAAATCCTCAACCAGCTATTTTCTGGAGGAGAAAGGGAGTCAGA ATCTACTTTTCTCATATCAACCACCACAGTCATCCAGCCGATTTTCAGTCTCCCAGACTG GCGACCTCACAATTACTAATGTCCAGCGATCTGATGTTGGTTATTACATCTGCCAGACTT TAAATGTTGCTGGAAGCATCATCACAAAGGCATATTTGGAAGTTACAGATGTGATTGCAG ATCGGCCTCCCCAGTTATTCGACAAGGTCCTGTGAATCAGACTGTAGCCGTGGATGGCA CTTTCGTCCTCAGCTGTGGGCCACAGGCAGTCCAGTGCCCACCATTCTGTGGAGAAAGG ATGGAGTCCTCGTTTCAACCCAAGACTCTCGAATCAAACAGTTGGAGAATGGAGTACTGC AGATCCGATATGCTAAGCTGGGTGATACTGGTCGGTACACCTGCATTGCATCAACCCCCA GTGGTGAAGCAACATGGAGTGCTTACATTGAAGTTCAAGAATTTGGAGTTCCAGTTCAGC CTCCAAGACCTACTGACCCAAATTTAATCCCTAGTGCCCCATCAAAACCTGAAGTGACAG ATGTCAGCAGAAATACAGTCACATTATCGTGGCAACCAAATTTGAATTCAGGAGCAACTC CAACATCTTATATTATAGAAGCCTTCAGCCATGCATCTGGTAGCAGCTGGCAGACCGTAG CAGAGAATGTGAAAACAGAAACATCTGCCATTAAAGGACTCAAACCTAATGCAATTTACC TTTTCCTTGTGAGGGCAGCTAATGCATATGGAATTAGTGATCCAAGCCAAATATCAGATC CAGTGAAAACACAAGATGTCCTACCAACAAGTCAGGGGGTGGACCACAAGCAGGTCCAGA GAGAGCTGGGAAATGCTGTTCTGCACCTCCACAACCCCACCGTCCTTTCTTCCTCTTCCA TCGAAGTGCACTGGACAGTAGATCAACAGTCTCAGTATATACAAGGATATAAAATTCTCT ATCGGCCATCTGGAGCCAACCACGGAGAATCAGACTGGTTAGTTTTTGAAGTGAGGACGC CAGCCAAAAACAGTGTGGTAATCCCTGATCTCAGAAAGGGAGTCAACTATGAAATTAAGG CTCGCCCTTTTTTAATGAATTTCAAGGAGCAGATAGTGAAATCAAGTTTGCCAAAACCC TGGAAGAAGCACCCAGTGCCCCACCCCAAGGTGTAACTGTATCCAAGAATGATGGAAACG GAACTGCAATTCTAGTTAGTTGGCAGCCACCTCCAGAAGACACTCAAAATGGAATGGTCC AAGAGTATAAGGTTTGGTGTCTGGGCAATGAAACTCGATACCACATCAACAAAACAGTGG ATGGTTCCACCTTTTCCGTGGTCATTCCCTTTCTTGTTCCTGGAATCCGATACAGTGTGG

2,0

AAGTGGCAGCCAGCACTGGGGCTGGGTCTGGGGTAAAGAGTGAGCCTCAGTTCATCCAGC TGGATGCCCATGGAAACCCTGTGTCACCTGAGGACCAAGTCAGCCTCGCTCAGCAGATTT CAGATGTGGTGAAGCAGCCGGCCTTCATAGCAGGTATTGGAGCAGCCTGTTGGATCATCC TCATGGTCTTCAGCATCTGGCTTTATCGACACCGCAAGAAGAGAAACGGACTTACTAGTA CCTACGCGGGTATCAGAAAAGTCCCGTCTTTTACCTTCACACCAACAGTAACTTACCAGA GAGGAGGCGAAGCTGTCAGCAGTGGAGGGGGGCCTGGACTTCTCAACATCAGTGAACCTG CCGCGCAGCCATGGCTGGCAGACACGTGGCCTAATACTGGCAACAACCACAATGACTGCT TGCTCCCTGAGTCAACTGTTTATGGTGATGTGGACCTTAGTAACAAAATCAATGAGATGA AAACCTTCAATAGCCCAAATCTGAAGGATGGGCGTTTTGTCAATCCATCAGGGCAGCCTA CTCCTTACGCCACCACTCAGCTCATCCAGTCAAACCTCAGCAACAACATGAACAATGGCA GCGGGGACTCTGGCGAGAAGCACTGGAAACCACTGGGACAGCAGAAACAAGAAGTGGCAC CAGTTCAGTACAACATCGTGGAGCAAAACAAGCTGAACAAGATTATCGAGCAAATGACA CAGTTCCTCCAACTATCCCATACAACCAATCATACGACCAGAACACAGGAGGATCCTACA ACAGCTCAGACCGGGGCAGTAGTACATCTGGGAGTCAGGGGCACAAGAAAGGGGCCAAGAA CACCCAAGGTACCAAAACAGGGTGGCATGAACTGGGCAGACCTGCTTCCTCCTCCCCAG CACATCCTCCTCCACACAGCAATAGCGAAGAGTACAACATTTCTGTAGATGAAAGCTATG ACCAAGAATGCCATGTCCCGTGCCACCAGCAAGGATGTATTYGCAACAAGATGAATTAG AAGAGGAGGAAGATGAACGAGGCCCCACTCCCCCTGTTCGGGGAGCAGCTTCTTCTCCAG TCCAGCCCATGTTACAGGATTGTCCAGAGGAGACTGGCCACATGCAGCACCAGCCCGACA GGAGACGGCAGCCTGTGAGTCCTCCTCCACCACCACGGCCGATCTCCCCTCCACATACCT ATGGCTACATTTCAGGACCCCTGGTCTCAGATATGGATACGGATGCGCCAGAAGAGGAAG AAGACGAAGCCGACATGGAGGTAGCCAAGATGCAAACCAGAAGGCTTTTGTTACGTGGGC TTGAGCAGACACCTGCCTCCAGTGTTGGGGACCTGGAGAGCTCTGTCACGGGGTCCATGA TCAACGGCTGGGGCTCAGCCTCAGAGGAGGACAACATTTCCAGCGGACGCTCCAGTGTTA GTTCTTCGGACGCTCCTTTTTCACTGATGCTGACTTTGCCCAGGCAGTCGCAGCAGCGG CAGAGTATGCTGGTCTGAAAGTAGCACGACGGCAAATGCAGGATGCTGCTGGCCGTCGAC TGCGCAGAGAAACCTACACAGATGATCTTCCACCACCTCCTGTGCCGCCACCTGCTATAA AGTCACCTACTGCCCAATCCAAGACACAGCTGGAAGTACGACCTGTAGTGGTGCCAAAAC GGAGAGAGTGTTGGATGGAAGACAGGTTGTTGACATGCGAACAAATCCAGGTGATCCCA GAGAAGCACAGGAACAGCAAAATGACGGGAAAGGACGTGGAAACAAGGCAGCAAAACGAG ACCTTCCACCAGCAAAGACTCATCTCATCCAAGAGGATATTCTACCTTATTGTAGACCTA $\tt CTTTTCCAACATCAAATAATCCCAGAGATCCCCAGTTCCTCAAGCTCAATGTCATCAAGAG$ (GATCAGGAAGCAGACAAAGAGAACAGCATCACTAATACTTCCAGAAGAAGCATAATAAAT CTAAAACAATAAAACTAACASTGTAAATATAAAGTAATGTTTAACTCACATTTTGGACAC CTGATTAAACTCAGCTCTAAAAGTACAGVBAAVVVVBTATATACTCGTTTGTGACATTTA ATTTCCAAAGCACCAAGGCAAAAGAGAGACTCACCTCTCATTTAAGTACCAATTGCCTAT GGCADABATTTGCMCVATATCATATAAAAAGTCAAGBXDDBGGAATTACATAAGCAAATT CAAATCACAGTGCT

3' differs.

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